

# 2008 City Drinking Water Quality Report

## Definitions

### Public Health Goal (PHG)

The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

### Maximum Contaminant Level Goal (MCLG)

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

### Maximum Contaminant Level (MCLs)

The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

### Maximum Residual Disinfectant Level Goal (MRDLG)

The level of a disinfectant (chlorine) added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

### Maximum Residual Disinfectant Level (MRDL)

The level of a disinfectant (chlorine) added for water treatment that may not be exceeded at the consumer's tap.

### Regulatory Action Level (AL)

The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.

### Treatment Technique (TT)

A required process intended to reduce the level of contaminants in drinking water.

### Primary Drinking Water Standards (PDWS)

MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

### Secondary Drinking Water Standards (SDWS)

MCLs for contaminants that affect taste, odor, or appearance of drinking water. Contaminants with SDWS do not affect the health at MCL levels.

### Unregulated Contaminant Monitoring Regulations (UCMR)

Data generated by the new UCMR will be used to evaluate and prioritize contaminants on the Drinking Water Contaminant Candidate List, a list of contaminants EPA is considering for possible new drinking water standards. Also known as "State Regulated Contaminants with No MCLs".

## Legend

- µg/L:** Micrograms per liter (parts per billion)
- mg/L :** Milligrams per liter (parts per million)
- ND:** Not detected at testing limit
- NTU:** Nephelometric Turbidity Units
- pCi/L :** PicoCuries per liter (a measure of radiation)
- µmhos/cm:** Micromhos per centimeter
- DBP:** Disinfection By-products
- NA:** Not applicable or no standard or no data

SUBSTANCE (Parameter)	Public Health Goal	Maximum Contaminant Level	Range Detected	Reporting Value	Range Detected	Reporting Value	Major Sources in Drinking Water
PRIMARY STANDARDS			Surface Water		Groundwater		
Regulated Contaminantswith Primary MCLs or MRDLs							
<i>Microbiological Contaminants</i>							
Total Coliform Bacteria	0	5% of monthly samples	0% – 0.54%	0.54%	0% – 0.54%	0.54%	Naturally present in the environment
Turbidity (NTU)	NA	TT = 1 NTU	0.02 - 0.15	0.15	See table below	See table below	
		TT = 95% of samples ≤0.3 NTU	NA	100%			Natural river sediment/soil run-off
<i>Inorganic Contaminants</i>							
Fluoride (mg/L)	1	2.0	0.29 – 0.47	0.39	ND – 0.64	0.30	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer factories
Arsenic (µg/L)	4	10	ND – 2.2	1.2	ND – 13	2.1	Erosion of natural deposits
Aluminum (µg/L)	600	1000	15 – 490	105	ND – 820	116	Erosion of natural deposits
Nitrate (mg/L)	45 as NO <sub>3</sub>	45	ND – 2.0	1.2	ND – 25.3	8.6	Erosion of natural deposits; runoff from fertilizer use
Barium (mg/L)	2	1	No Range	0.061	No Range	0.032	Erosion of natural deposits
Uranium (µg/L)	NA	30	2.40 - 2.86	2.55	ND - 9.50	2.12	Erosion of natural deposits
Chromium, Total - Cr (µg/L)	NA	50	ND - 3.4	2.1	ND - 12	4.0	Erosion of natural deposits
<i>Disinfection By-products, Residuals, and Disinfection By-product Precursors</i>							
Total Trihalomethanes (µg/L)	NA	Running Average 80	1.6 – 114	69.5	1.6 – 114	69.5	By-product of drinking water chlorination
Haloacetic Acids (µg/L)	NA	60	ND – 5.8	9.4	ND – 5.8	9.4	By-product of water disinfection
Disinfectant - Free Chlorine Residual (mg/L)	MRDLG as Cl <sub>2</sub> 4.0	MRDL as Cl <sub>2</sub> 4.0	ND – 1.6	0.52	ND – 1.6	0.52	Drinking water disinfectant added to treatment
Control of DBP Precursors - TOC (mg/L)	NA	Treatment Requirements	2.63 – 3.90	3.26	0.24 - 0.83	0.41	Total Organic Carbon (TOC) has no health effects. However, it provides a medium for the formation of disinfection by-products. Various natural & manmade sources.
<i>Volatile Organics</i>							
Methyl-tert-butyl ether (MTBE) (µg/L)	13	13	ND	ND	ND – 9.7	6.0	Leaking underground gasoline storage tanks; discharge from gasoline and chemical factories
UCMR <i>Unregulated Contaminants</i>							
Boron (µg/L)	NA	1000	260 – 270	265	NA	NA	
Vanadium (µg/L)	NA	50	ND – 4.9	2.2	NA	NA	
Chromium, Hexavalent - CrVI (µg/L)	NA	50	ND	ND	ND - 1.9	1.2	Erosion of natural deposits
Lead/Copper Rules <i>Monitored at the Customer's Tap</i>			Number of sites exceeded Action Level = 0				
Copper (mg/L)	0.17	1.3 (AL)	ND – 0.474	0.079	ND – 0.474	0.079	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (µg/L)	2	15 (AL)	ND – 4.0	2.4	ND – 4.0	2.4	
Radiochemistry <i>Radioactive Contaminants</i>							
Radon (pCi/L)	NA	NA	ND	ND	ND – 350	312	See reporting notice on radon in this report
Gross Alpha Particle Activity (pCi/L)	NA	15	ND	ND	ND – 3.7	ND	Erosion of natural deposits
SECONDARY STANDARDS			<i>Aesthetic Standards Established By the State of California, Department of Health Services. No adverse health affects from exceedence of standards.</i>				
Regulated Contaminants with Secondary MCLs							
	Consumer Acceptance Contaminant Levels						
Groundwater Turbidity (NTU)	NA	5	See table above	See table above	0.09 – 0.64	0.64	Natural river sediment soil run-off
Aluminum (µg/L)	NA	200	15 - 490	105	ND - 820	116	Erosion of natural deposits; from surface water treatment processes
Color (Units)	NA	15	ND – 7	ND	ND - 15	6	Naturally occurring organic materials
Copper (µg/L)	NA	1000	ND - 2.9	1.7	2 – 73	18	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Iron (µg/L)	NA	300	ND	ND	ND - 356	79	Leaching from natural deposits
Manganese (µg/L)	NA	50	ND - 24.3	2.5	ND – 230	61	Naturally occurring, but occurs more in conditions lacking dissolved oxygen in water
Methyl-tert-butyl ether (MTBE) (µg/L)	NA	5.0	ND	ND	ND - 9.7	6.0	Leaking underground gasoline storage tanks; discharge from gasoline and chemical factories
Threshold Odor Number at 60 °C	NA	3	3 – 10	6	ND - 15	7	Naturally occurring organic materials
Zinc (µg/L)	NA	5000	ND - 15.6	9	7 – 474	36	Naturally occurring in trace amounts, but can be detected in soft, acidic water systems
	Consumer Acceptance Contaminant Level Ranges						
Total Dissolved Solids (mg/L)	NA	500 - 1000 - 1500	532 – 742	622	458 – 1231	821	Run-off / leaching from natural deposits
Specific Conductance (µmhos/cm)	NA	900 - 1600 - 2200	749 - 1149	868	791 – 1844	1157	Run-off / leaching from natural deposits; seawater influence
Chloride (mg/L)	NA	250 - 500 - 600	16 - 22	19	39 – 594	114	Run-off / leaching from natural deposits; seawater influence
Sulfate (mg/L)	NA	250 - 500 - 600	204 - 316	250	161 – 295	225	Run-off / leaching from natural deposits
Additional Constituents							
pH (units)	NA	NA	7.93 – 8.23	8.09	6.72 – 7.17	6.97	
Total Hardness as CaCO <sub>3</sub> (mg/L)	NA	NA	331 – 466	380	252 – 660	457	
Total Alkalinity as CaCO <sub>3</sub> (mg/L)	NA	NA	166 – 224	185	192 – 304	245	
Calcium as Ca (mg/L)	NA	NA	78 – 106	88	82 – 158	121	
Magnesium (mg/L)	NA	NA	31 – 46	37	24 – 73	39	
Sodium (mg/L)	NA	NA	33 – 46	40	39 – 114	66	
Potassium (mg/L)	NA	NA	2.8 – 5.6	3.8	1.3 – 4.6	2.0	

**Note:** Listed in the table above are substances detected in the City's drinking water. Not listed are more than 135 regulated and unregulated substances that were below the laboratory detection level.